

CONFERENCE AGENDA

The 1985 FASEB Summer Research Conference on Trace Elements will focus on the more recent discoveries delineating biological roles and functions of iron, copper, zinc and selenium.

The nine sessions are described below together with speakers and a topic agenda:

1. Iron Metabolism and Utilization

Paul Saltman, U. of California, San Diego, Chairman
Hamish Munro, M.I.T.
Evan Morgan, U. Western Australia
George Bates, Texas A&M

This session will discuss latest information on the mechanisms of iron, absorption and intracellular metabolism; transferrin receptors, intracellular valence and induction of specific mRNA for iron storage proteins.

2. Metabolism and Function of Copper

Joseph Prohaska, University of Minnesota, Chairman
Robert Rucker, University of California, Davis
Murray Ettinger, SUNY, Buffalo
Maria Linder, California State University, Fullerton

This session will consider the role of copper in iron mobilization, mechanisms of copper uptake into cultured cells and the newest information on copper in connective tissue metabolism.

3. Selenium

John Rotruck, Proctor and Gamble Co., Chairman
Raymond Burk, S. Western Medical School, Dallas
Harvey Cohen, U. of Rochester

This session will focus on intracellular metabolism of selenium and the control of seleno-metalloenzymes.

4. Workshop on Methods of Nutritional Assessment

Claude Veillon, USDA Beltsville
Dennis Gordon, University of Missouri
Walter Mertz, USDA Beltsville

Three topics covered in this session will include use of stable isotopes, methods of assessing trace metal interaction and methods used to approach questions of bioavailability.

5. Zinc

Robert Cousin, University of Florida, Chairman
Boyd L. O'Dell, University of Missouri
Michael Hambridge, University of Colorado
Ian Bremner, Rowett Institute, Aberdeen

This session will focus on the regulation of zinc metabolism by hormones, zinc binding, and storage proteins, and zinc-related factors in human health.

6. Workshop: Approaches to the study of Metabolism of Trace Metals

Forrest Nielson, USDA, Grand Forks, SD
Evan Morgan, U. of Western Australia
Ananada Prasad, Detroit, Michigan
Jerry Spears, N. Carolina State

Questions of problems confronting investigators of rare trace metals, use of receptors in trace metal uptake by cells and the technique used for assessing zinc deficiency in humans.

7. Reproduction, Growth and Development

Jean Apgar, USDA Ithaca, NY
Pietro Gullino, NCI, NIH
Lucille Hurley, U. California, Davis
Kenneth Falchuk, Harvard

This session will consider the role of trace metals in developmental processes such as angiogenesis, cell growth in tissue culture.

8. Abnormal Metabolism

Irmin Sternlieb, Albert Einstein, Chairman
David Danks, Melbourne, Australia
Mark Failla, Virginia Polytech.

This session will focus on abnormal trace metal metabolism as a factor in pathogenesis of liver and Menkes' disease.

9. Disease Resistance and Therapy

John R. J. Sorenson, U. Arkansas
George Brewer, U. of Michigan
Gabriel Fernandes, U. Texas, San Antonio
David McMurray, Texas A&M

This session will detail the latest discoveries of the role of trace metals, zinc and copper in particular, in treatment of inflammations and the maintainence of immune system competence.